

4. The DNA sequence according to claim 1 wherein the gene coding for a polypeptide of interest is selected from the group consisting of genes encoding enzymes, cell surface proteins, and functional peptides.

A²
5. The DNA sequence according to claim 4, wherein the gene coding for a polypeptide of interest is selected from the group consisting of genes coding for dextranucrase, glycosyltransferase, phytase, transglutaminase, peptidase, phenylalanine ammonia lyase, protease, cell surface antigens, bacteriocins, hormones and insulin.

6. The DNA sequence according to claim 1, which is devoid of catabolite responsive elements.

A³
8. A recombinant microorganism harboring a DNA sequence represented by a formula selected from the group consisting of:

$$p/o - (A)_n - R_y, \text{ and}$$

$$p/o - R_y - (A)_n$$

wherein

p/o denotes the DNA sequence identified under SEQ ID No. 9, which retains its capability to bind to the lac repressor protein of *Lactobacillus delbrueckii*;

A denotes a heterologous gene coding for a polypeptide of interest,

n denotes an integer of ≥ 0 ;

R denotes a gene coding for the lac repressor protein as identified under SEQ ID No. 2; and

Y is 0 or 1.

10. The microorganism according to claim 8, which is selected from the group consisting of lactic acid bacteria.

11. The microorganism according to claim 8, wherein the DNA sequence is incorporated into the bacteria's chromosome.

12. The microorganism according to claim 8, which is selected from the group consisting of CNCM I-2089, CNCM I-2090 and CNCM I-2091.

13. A method of producing a polypeptide comprising the steps of using a DNA sequence represented by a formula selected from the group consisting of:

$$p/o - (A)_n - R_y, \text{ and}$$

$$p/o - R_y - (A)_n$$

wherein

p/o denotes the DNA sequence identified under SEQ ID No. 9, which retains its capability to bind to the lac repressor protein of *Lactobacillus delbrueckii*;

A denotes a heterologous gene coding for a polypeptide of interest,

n denotes an integer of ≥ 0 ;

R denotes a gene coding for the lac repressor protein as identified under SEQ ID No. 2; and

Y is 0 or 1 for the production of a polypeptide A.

14. The method according to claim 13, wherein the DNA sequence is harbored in a plasmid maintained extra-chromosomal.

15. The method according to claim 13, wherein expression is performed in gram positive microorganisms.

16. The method according to claim 13, wherein expression is performed in microorganisms selected from the group consisting of lactic acid bacteria.

17. A method for the production of food products comprising the steps of using a microorganism having a DNA sequence represented by a formula selected from the group consisting of:

$$p/o - (A)_n - R_y, \text{ and}$$

$$p/o - R_y - (A)_n$$

wherein

p/o denotes the DNA sequence identified under SEQ ID No. 9, which retains its capability to bind to the lac repressor protein of *Lactobacillus delbrueckii*;

A denotes a heterologous gene coding for a polypeptide of interest,

n denotes an integer of ≥ 0 ;

R denotes a gene coding for the lac repressor protein as identified under SEQ ID No. 2; and

Y is 0 or 1.

Please add newly-submitted Claims 18-19 as follows:

18. The microorganism according to claim 8, wherein the DNA sequence is harbored in a plasmid maintained extra-chromosomal.